

**CLAIMS**

We claim:

5           1. A method of treating a human or animal having undesirable cell proliferation comprising,

10           administering to the human or animal a sufficient amount of a composition comprising tissue factor pathway inhibitor to inhibit the undesirable cell proliferation.

10           10       2. The method of Claim 1 wherein the undesirable cell proliferation is undesirable endothelial cell proliferation.

15           15       3. The method of Claim 1 wherein the undesirable cell proliferation is an angiogenesis-related disease.

20           20       4. The method of Claim 3, wherein the angiogenic-related disease is a disease selected from the group consisting of cancer, arthritis, macular degeneration, and diabetic retinopathy.

25           25       5. The method of Claim 1 wherein administration of the composition inhibits angiogenesis.

30           30       6. The method of Claim 1 wherein the tissue factor pathway inhibitor is a protein or peptide having the amino acid sequence set forth in SEQ ID NO. 1, a homolog thereof, or an anti-proliferative fragment thereof.

35           35       7. The method of Claim 6 wherein the homolog is a protein or peptide having the amino acid sequence set forth in SEQ ID NO. 2 or an anti-proliferative fragment thereof.

8. The method of Claim 6 wherein the anti-proliferative fragment contains the Kunitz-3 domain or a fragment thereof.

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9. The method of Claim 7 wherein the anti-proliferative fragment contains the Kunitz-3 domain or a fragment thereof.

10 10. The method of Claim 1 wherein the composition comprises tissue factor pathway inhibitor and a pharmaceutically acceptable excipient, carrier or sustained-release matrix.

15 11. A composition for inhibiting cell proliferation comprising tissue factor pathway inhibitor in a pharmaceutically acceptable carrier.

20 12. The composition of Claim 11, wherein the tissue factor pathway inhibitor comprises an active fragment of tissue factor pathway inhibitor, wherein the active fragment inhibits cell proliferation.

25 13. The composition of Claim 12 wherein the active fragment inhibits endothelial cell proliferation.

14. The composition of Claim 12 wherein the active fragment inhibits angiogenesis.

30 15. The composition of Claim 12 wherein the active fragment inhibits angiogenesis-related disease.

16. The composition of Claim 15, wherein the angiogenic-related disease is a disease selected from the group consisting of cancer, arthritis, macular degeneration, and diabetic retinopathy.

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17. The composition of Claim 12 wherein the active fragment is a peptide having an amino acid sequence within the amino acid sequence set forth in SEQ ID NO. 1.

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18. The composition of Claim 12 wherein the active fragment is a peptide having an amino acid sequence within the amino acid sequence set forth in SEQ ID NO. 2.

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19. The composition of Claim 11 wherein the active fragment contains the Kunitz-3 domain or a fragment thereof.

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20. The composition of Claim 10, wherein the carrier is a sustained-release matrix.